REMARKS

Reconsideration of this application is respectfully requested in view of the above amendments and the remarks contained herein.

STATUS OF CLAIMS AND SUPPORT FOR AMENDMENTS

Upon entry of this amendment, claims 1-5, and 7-30 will be pending in this application.

Claims 5-7 have been cancelled without prejudice to, or disclaimer of their subject matter.

Support for the amendment to claim 1 can be found in the specification in claims 7 and 9, and in the specification at page 9, line 15 (substitute specification, marked-up copy) and at page 5, lines 13-14 (substitute specification, marked-up copy).

Support for new claims 29 and 30 can be found in the specification at page 8, lines 21-22, and in original claims 1 and 2.

RESPONSE TO INTERVIEW SUMMARY

Applicant expresses appreciation to Examiner Sheehan for the courtesies extended to the undersigned during the personal interview held on November 18, 2010. As discussed at the interview and suggested by the Examiner, new claims 29 and 30 have been added to more clearly distinguish between the two hydrogenation steps.

OBVIOUSNESS REJECTIONS

A. Claims 1-5, and 7-23 over Takeshita et al. in view of Yajima et al.

On pages 2-4 of the Office action dated January 11, 2010, the Office has rejected claims 1-5, and 7-23 under 35 U.S.C. § 103(a) as obvious over U.S. Patent Application No. 5,110,374 (Takeshita et al.) in view of U.S. Patent Application No. 5,049,208 (Yajima et al.). Applicant respectfully submits that this rejection should not be repeated for the reasons given below.

Applicant has amended the claims to recite that (a) the starting material has an average grain size smaller than 0.1 mm, and (b) that the starting material has a crystal size and a particle size such that the crystal size is, at most, 75% of the particle size. Moreover, Applicant submits that it should be kept in mind that the claims recite that the starting material is anisotropic (or comprises magnetic scrap, which is also anisotropic).

According to Example 1 of the Takeshita et al. reference (see column 14, line 38), an ingot having an average crystal grain size of 110 μm is course crushed and milled so as to achieve a powder with an average particle size of 3.7 μm. Consequently, as the average particle size is significantly lower than the crystal grain size, the particles of the powder must be substantially monocrystalline. Hence, these particles cannot exhibit feature (b) noted above.

On the other hand, with respect to the above-mentioned ingot itself because of its average crystal grain size of 110 μm, it does not exhibit feature (a), i.e., its grain size is not smaller than 0.1 mm.

With regard to Yajima et al., the Office has stated that it has relied on Yajima et al. only for the teaching that it would be well known that rare earth-transition-boron

anisotropic magnetic materials had crystal grain sizes of less than 10 microns (as stated in the Final Office Action mailed January 12, 2010). However, as Applicants have already discussed, the magnetic material disclosed in Yajima et al. is isotropic, not anisotropic. As a result, the present invention cannot be rendered obvious even if the Yajima et al. material was used as starting material of the process disclosed by Takeshita et al.

With respect to new claims 28 and 30, Applicant respectfully submits that neither cited reference teaches or suggests using two separate hydrogenation process steps, the second at an elevated temperature with respect to the temperature of the first. Accordingly, even if these references were combined, the result is not Applicant's claims.

B. Claims 1-5, and 7-23 over Takeshita et al. in view of either Kim or Kaneko et al. further in view of Yajima et al.

On pages 4-7 of the Office action dated January 11, 2010, the Office has rejected claims 1-5, and 7-23 under 35 U.S.C. § 103(a) as obvious over Takeshita et al. in view of either U.S. Patent Application No. 5,091,020 (Kim) or U.S. Patent Application No. 6,149,861 (Kaneko et al.) in view of Yajima et al. Applicant respectfully submits that this rejection should not be repeated for the reasons given below.

The Office states:

> ...one of ordinary skill in the art ... would have considered the invention to have been obvious because such a person would have been motivated to substitute scrap rare earth-transition metal-born alloy for the new rare earth-transition metalboron alloy as the starting material in Takeshitas '3 74's process for economic and environmental reasons as taught by each of Kim '020 and Kaneko '861. The results of such a substitution are

reasonably predictable."

Office action dated January 12, 2010 at page 6. Applicant respectfully submits that the Office has not established a prima facie case of obviousness because (1) Kim and Kaneko et al. fail to cure the deficiencies in Takeshita et al. and Yajima et al. noted above, and (2) the Office has failed to adequately explain why one of ordinary skill in the art would have combined Kim and Kaneko et al. with the other cited references. More particularly, the Office does not explain why a person skilled in the art would have considered to use the Kim or Kaneko material as starting material in the Takeshita process. In particular, both Kim and Kaneko refer to sintered magnets (see Kim, col 1, lines 8-12 and Kaneko, col. 1, lines 7- 12). In contrast, Takeshita is directed to a magnetic powder (see col. 1, lines 11-13 and col. 3, lines 43-45) that can be used for the production of bonded magnets, see col. 1, lines 15-30:

> Rare earth-iron-boron alloy magnet powders, comprising iron (Fe), boron (B) and a rare earth element inclusive of yttrium (Y) (which will be hereinafter represented by R), have been developed mainly for use as bonded magnets since rare earthiron-boron alloys attracted attention as permanent magnet materials having superior magnetic properties. The bonded magnet is inferior in magnetic properties to the magnet powder contained therein or to other sintered magnets of the same kind, but is superior in physical strength and has such a high degree of freedom that it can be formedfreely into an arbitrary shape, thereby varying application rapidly in recent years. Such bonded magnet is comprised of magnet powder bonded with organic or metal binders or the like, and its magnetic properties are influenced by those of the magnet powder.

Based upon the explicit disclosures of the references cited by the Office, there appears to be a recognized need to improve organic or metal-based magnetic powder magnets. No such need is disclosed in the cited references for improving

the sintered magnets produced in Kim or Kaneko et al. Moreover, the Office has not provided any reference that would lead one of ordinary skill in the art to the conclusion that teachings relevant to bonded magnetic powders are applicable to sintered magnets, or conversely, that teachings relevant to sintered magnets are applicable to bonded powder magnets with any reasonable expectation of success.

CONCLUSION

Applicants submit that this application is in condition for immediate allowance, and an early notification to that effect is respectfully requested. If the Examiner has any questions about this application, or believes that any issues remain to be resolved, the Examiner is respectfully requested to contact the undersigned to arrange for a personal or telephonic interview to resolve these issues prior to the issuance of another Office action.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: December 28, 2010 By: _____

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